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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/233,145	01/19/1999	SHUNPEI YAMAZAKI	0756-1915	7892

7590

01/02/2002

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MCLEAN, VA 22102

EXAMINER

DUONG, TAI V

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 01/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/233,145

Applicant(s)

YAMAZAKI ET AL.

Examiner

TAI DUONG

Art Unit

2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 9/28/2001 and 11/2/2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-130 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-55 is/are allowed.
- 6) ☒ Claim(s) 56-130 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 07/897,669.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 1935 Comm'r Dec. 11 (1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submissions filed on 9/28/01 and 11/2/01 have been entered.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 56-130 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1-156725 (JP'725, cited in the Office action dated 6/25/99) in view of Wakai et al (Wakai'899, US 5,055,899 cited in the IDS dated 1/19/99).

The only differences between the display device of Fig. 4 of JP'725 and that of the instant claims are the JP'725 is silent about the gate insulating film 44 comprising an inorganic material, the semiconductor 43 comprising crystalline silicon, and the display device is used as a television (see the English translation of JP'725 in parent application 08/566,897). Wakai' 899 discloses that it is well-known in the art to employ a gate insulating film comprising an inorganic material (silicon oxide, silicon nitride; col. 2, lines 1-4). In addition, it is noted that the examiner is not aware at the time of the instant invention was made that there is a gate insulating film formed of

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an organic material that functions as good as the inorganic gate insulating film. Thus, it would have been obvious to a person of ordinary skill in the art in view of Wakai'899 to employ a gate insulating film comprising an inorganic material for obtaining a gate insulating film with small thickness and good insulating characteristics. Also, it would have been obvious to employ crystalline silicon (polysilicon) in the display device of Fig.4 for obtaining thin film transistors (TFTs) with high mobility, as compared to amorphous silicon. Also, it is well-known to employ active matrix liquid crystal displays (AMLCD) in televisions because of the compactness and low operating voltages of AMLCDs, as compared with cathode ray tube type televisions.

Claims 1-55 are allowable.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (703) 308-4873.

TO  
TVD

12/28/01

  
TOANTON  
PRIMARY EXAMINER